

AMENDMENTS TO THE SPECIFICATION

Applicant hereby directs entry of the Sequence Listing submitted herewith into the present application.

Please replace the third paragraph on page 13 of the Specification as filed with the following paragraph:

Figure 7. The sequence of VP8 contains several regions highly similar to occludin and claudins segments present in their external loops.

(A) The shadowed segments of VP8 sequence (SEQ ID NO:2) have a $\geq 50\%$ identity to regions of the extracellular loops of occludin or claudin. Next to the brackets the name of the similar protein is indicated (e.g. cl 2, occl etc.). The sequence of peptide VP8₁₄₁₋₁₈₂ is indicated within a frame.

(B) Sequence comparison of VP8₁₅₀₋₁₅₉ (SEQ ID NO: 8) and VP8₁₇₄₋₁₇₇ (SEQ ID NO: 6) with occludin external loops. First Loop: Dog, (SEQ ID NO: 9); mouse, (SEQ ID NO:10); rat, (SEQ ID NO:11); human, (SEQ ID NO:12); chicken, (SEQ ID NO:13); and kangaroo rat, (SEQ ID NO:14). Second Loop: Dog, (SEQ ID NO:15); mouse, (SEQ ID NO:16); rat, (SEQ ID NO:17); human, (SEQ ID NO:18); chicken, (SEQ ID NO:19); and kangaroo rat, (SEQ ID NO:20).

(C) Sequence comparison between diverse VP8 segments and claudins.

VP8 Segments: 5-10, (SEQ ID NO: 21); 18-23, (SEQ ID NO: 22); 27-31, (SEQ ID NO: 23); 39-45, (SEQ ID NO: 24); 45-49, (SEQ ID NO: 25); 65-70, (SEQ ID NO: 26); 69-72, (SEQ ID NO: 27); 74-78, (SEQ ID NO: 28); 81-85, (SEQ ID NO: 29); 88-94, (SEQ ID NO: 30); 113-123, (SEQ ID NO: 31); 116-121, (SEQ ID NO: 32); 134-140, (SEQ ID NO: 33); 142-146, (SEQ ID NO: 34); 152-155, (SEQ ID NO: 35); 155-158, (SEQ ID NO: 36); 161-164, (SEQ ID NO: 37); 170-175, (SEQ ID NO: 38); 173-177, (SEQ ID NO: 39); 183-186, (SEQ ID NO: 40); 187-191, (SEQ ID NO: 41); 194-197, (SEQ ID NO: 42); 202-205, (SEQ ID NO: 43); 216-219, (SEQ ID NO: 44);

Cl-1 Segments: 149-154, (SEQ ID NO: 45); 31-35, (SEQ ID NO: 46); 39-44, (SEQ ID NO: 47); 65-68, (SEQ ID NO: 48);

Cl-2 Segments: 66-71, (SEQ ID NO: 49); 148-151, (SEQ ID NO: 50); 67-70, (SEQ ID NO: 51); 64-67, (SEQ ID NO: 52); 145-148, (SEQ ID NO: 53);

Cl-3 Segments: 151-154, (SEQ ID NO: 54); 146-149, (SEQ ID NO: 55); 146-150, (SEQ ID NO: 56); 31-35, (SEQ ID NO: 57); 67-70, (SEQ ID NO: 58);

Cl-4 Segments: 148-151, (SEQ ID NO: 59); 148-152, (SEQ ID NO: 60); 55-59, (SEQ ID NO: 61); 67-70, (SEQ ID NO: 62); 145-148, (SEQ ID NO: 63);

Cl-5 Segments: 64-69, (SEQ ID NO: 64); 139-143, (SEQ ID NO: 65); 33-38, (SEQ ID NO: 66);

Cl-6 Segments: 148-152, (SEQ ID NO: 67); 148-151, (SEQ ID NO: 68); 67-70, (SEQ ID NO: 69);

Cl-7 Segments: 129-133, (SEQ ID NO: 70); 129-132, (SEQ ID NO: 71); 64-67, (SEQ ID NO: 72);

Cl-8 Segments: 139-143, (SEQ ID NO: 73); 139-142, (SEQ ID NO: 74); 73-76, (SEQ ID NO: 75); 136-139, (SEQ ID NO: 76);

Cl-9 Segments: 148-152, (SEQ ID NO: 77); 43-49, (SEQ ID NO: 78); 148-151, (SEQ ID NO: 79); 47-50, (SEQ ID NO: 80); 145-149, (SEQ ID NO: 81);

Cl-10 Segments: 72-77, (SEQ ID NO: 82);

Cl-11 Segments: 33-38, (SEQ ID NO: 83); 156-159, (SEQ ID NO: 84);

Cl-12 Segments: 165-168, (SEQ ID NO: 85);

Cl-13 Segments: 154-158, (SEQ ID NO: 86); 63-66, (SEQ ID NO: 87);

Cl-14 Segments: 66-71, (SEQ ID NO: 88); 148-152, (SEQ ID NO: 89); 148-151, (SEQ ID NO: 90); 150-153, (SEQ ID NO: 91); 57-62, (SEQ ID NO: 92);

Cl-15 Segments: 69-74, (SEQ ID NO: 93); 160-163, (SEQ ID NO: 94);

Cl-16 Segments: 29-33, (SEQ ID NO: 95);

Cl-17 Segments: 65-69, (SEQ ID NO: 96); 64-67, (SEQ ID NO: 97);

Cl-18 Segments: 167-175, (SEQ ID NO: 98);

Cl-19 Segments: 63-68, (SEQ ID NO: 99); and

Cl-20 Segments: 54-57, (SEQ ID NO: 100).

The shadowed letters correspond to amino acids in VP8 that are identical to those present in claudins. The sequence access number for the different claudins employed are: claudin 1, rat, NP113887; claudin 2, dog, AAK57433 ; claudin 3, rat, NP113888; claudin 4, mouse, NP034033; claudin 5, rat, AAF73425; claudin 6, mouse, Q9Z262; claudin 7, rat, CAA09790; claudin 8, mouse, Q9Z260; claudin 9, mouse, NP064689; claudin 10, mouse, Q9Z056; claudin 11, rat,

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NP445909; claudin 12, human, XP004591; claudin 13, mouse, Q9Z054; claudin 14, mouse, NP062373; claudin 15, mouse, NP68365; claudin 16, rat, NP571980; claudin 17, human, P56750; claudin 18, mouse, P56857; claudin 19, mouse, AAF98323; claudin 20, human P56880.